

# School of Computing Science & Engineering

**Program name: B.Tech Computer Science & Engineering**

## Program Structure 2023-24

ASSESSMENT PATTERNS (Common for All Semesters)

### COURSES

CONTINUOUS INTERNAL EXAMINATION (CIE)								Semester End Examination (SEE)	
Rubric and Assessment Tools								Total CIE Marks	Max. Marks
Course Type	QUIZ 1/AAT	CAT1	QUIZ2/AAT	CAT2	LAB	LAB Test	Course-based Project		
Theory	20	30	20	30	0	0	0	100	100
Blended	0	30	0	30	20	20	0	100	100
Comprehensive	0	30	0	30	20	0	20	100	100

### Rubric for Course-based Project

S.No.	Type of Assessment Tools	CIE Marks (Rubric)					Total
		PPP	TS1	TS2	Viva	Total	
1	Course-based Project Work	5	5	5	5	20	

### PASS REQUIREMENTS

Internal Examination (CIE) -Should secure 30% of marks in every individual assessment in the CIE and 40% in total; otherwise not permitted to appear in SEE; Condition1-Continuous  
 Condition2-Semester End Examination (SEE) or End Term Examination (ETE)-should secure 40% in the SEE/ETE Condition3-  
 The overall marks both CIE and SEE together should be more than or equal to 40% to declare pass in a Course.

\*-: Students have to secure minimum 30% marks in each assessment to eligible for appearing in ETE/SEE.(minimum 3 marks in QUIZ 1/AAT and QUIZ2/AAT individually & minimum 12 marks each in both CAT1 & CAT2). Same rule applies to all assessment tools.

\*\*:-: Student need to secure minimum 40 marks separately in ETE/SEE along with above mentioned criterion to pass the respective Course.

PPP(Preliminary Project Plan )	To submit the PPP before the Quiz1 by a group of 4 students; After Quiz-1 the course faculty should approve the PPP and permit the student group to commence the project.	The preliminary project plan (PPP) provides an initial, overview of the project and all of its known parameters. It outlines the project's objectives, relevance to the program merit, and conformity to current industry/government policy, proposed methodology, and expected outcomes. It should also include any known constraints related to the time frame (Gantt Chart), budget, and, etc.
TS1 (Technical Seminar 1 )	After Quiz-1	After the second Quiz, the course faculty member should take 1st review of th status byh all the student groups
TS2 (Technical Seminar 2)	After CAT-1	After CAT1 the course faculty member should take trhe 2nd review of the status byh all the student groups
VIVA	After CAT-2	After CAT2 the course faculty member should take trhe 2nd review of the status byh all the student groups

### RUBRICS

Lab	Rubrics 1 (..marks)	Rubrics 2 (..marks)	Rubrics 3 (..marks)	Rubrics 4 (..marks)	Rubrics 5 (..marks)	To be defined by the respective faculty handling the course
Project	Rubrics 1 (..marks)	Rubrics 2 (..marks)	Rubrics 3 (..marks)	Rubrics 4 (..marks)	Rubrics 5 (..marks)	To be defined by the respective faculty handling the course

## Program Structure 2023-24

### First Semester

			Credit Structure						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	Engineering Mathematics-I	3	0	1	0	4	5	
2	Will be given by ERP	Modern Physics/Semi conductor Physics / Condensed Matter Physics/	3	0	1	0	4	5	

4	Will be given by ERP	Biology for Engineers/Nano Technology/Alternate Energy/Synthetic Chemistry /Biomaterials and Implants	3	0	0	0	3	3	
3	Will be given by ERP	Basic Electrical & Electronics Engg. / Engineering Graphics and Introduction to Digital Fabrication	3	0	1	0	4	5	
4	Will be given by ERP	Programming for Problem Solving - C	3	0	1	1	5	8	Skill
5	Will be given by ERP	YOGA / Environmental Impact Analysis	2	0	0	0	0	2	
<b>Total credits</b>							17	28	

Second Semester									
Sl. No.	Course Code	Course Title	Credit Structure				Credits	Hours	Type
			L	T	P	S			
1	Will be given by ERP	Engineering Mathematics-II	3	0	1	0	4	5	
2	Will be given by ERP	Discrete Mathematics / Engineering Mechanics	3	0	0	0	3	3	
3	Will be given by ERP	Basic Electrical & Electronics Engg. / Engineering Graphics and Introduction to Digital Fabrication	3	0	1	0	4	4	
4	Will be given by ERP	Modern Physics/Semi conductor Physics / Condensed Matter Physics/	3	0	1	0	4	5	
	Will be given by ERP	Biology for Engineers/Nano Technology/Alternate Energy/Synthetic Chemistry /Biomaterials and Implants	3	0	0	0	3	3	
5	Will be given by ERP	Engineering Workshop / Introduction of Digital System	2	0	1	0	3	4	
6	Will be given by ERP	OOPS	3	0	1	1	5	8	EMP
7	Will be given by ERP	Communication Skills for Engineers	0	0	2	0	2	4	Skill
8	Will be given by ERP	YOGA / Environmental Impact Analysis	2	0	0	0	0	2	
<b>Total credits</b>							24	38	

Third Semester									
Sl. No.	Course Code	Course Title	Credit Structure				Credits	Hours	Type
			L	T	P	S			
1	Will be given by ERP	Data Communication and Networking	3	0	1	0	4	5	EMP
2	Will be given by ERP	Data Base management System	3	0	1	0	4	5	EMP
3	Will be given by ERP	Data Structures & Algorithms	3	0	1	0	4	5	EMP
4	Will be given by ERP	Programming Ability and Logic Building -1/Theory & Practices of Entrepreneurship /Competitive Mathematics/Introduction of Digital Marketing	3	0	1	1	5	8	
5	Will be given by ERP	Design Thinking	2	0	0	0	2	0	EP
<b>Elective-01</b>									
6	Will be given by ERP	Cryptographic Fundamentals	3	0	0	0	3	3	EMP
6	Will be given by ERP	Software Engineering	3	0	0	0	3	3	EMP

6	Will be given by ERP	Cyber Security (Infosys)	3	0	0	0	3	3	EMP
6	Will be given by ERP	Optimization Techniques	3	0	0	0	3	3	EMP
6	Will be given by ERP	Artificial Ielligence	3	0	0	0	3	3	EMP
	Will be given by ERP	Communication Competency & Aptitude Building -1	0	0	2	0	2	4	Skill
7	Will be given by ERP	Professional Ethics & Human values	2	0	0	0	0	2	
<b>Total credits</b>							<b>24</b>	<b>26</b>	

Fourth Semester									
			Credit Structure						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	Operating System	3	0	1	0	4	5	EMP
2	Will be given by ERP	Computer Graphics	3	0	1	0	4	5	EMP
3	Will be given by ERP	Analysis and Design of Algorithms	3	0	1	0	4	5	EMP
4	Will be given by ERP	Programming Ability and Logic Building -II/Exploring Business opportunity and Market Survey/Programming: A Step Ahead /Social Media Marketing	3	0	1	1	5	8	
5	Will be given by ERP	Internship	0	0	1	0	1	2	Skill
<b>Elective-2</b>									
6	Will be given by ERP	Internet of Things (Ardino/ Rasberry Pi)	3	0	1	0	4	5	EMP
6	Will be given by ERP	Data Sciences (R Prog)	3	0	1	0	4	5	EMP
6	Will be given by ERP	Data Mining and Warehousing (Weka)	3	0	1	0	4	5	EMP
6	Will be given by ERP	Network Design and Management ( Cisco)	3	0	1	0	4	5	EMP
7	Will be given by ERP	Communication Competency & Aptitude Building -2	0	0	2	0	2	4	Skill
<b>Total credits</b>							<b>24</b>	<b>25</b>	

Fifth Semester									
			Credit Structure						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	Theory of Computation	3	0	0	0	3	3	EMP
2	Will be given by ERP	Software Engineering & Testing Methodologies	3	0	0	0	3	3	EMP
3	Will be given by ERP	Programming Ability and Logic Building -III/Legal Incorporation & Incubation/Digital & Operating System/Social Engine Optimization/	3	0	1	1	5	8	
4	Will be given by ERP	Communication Competency & Aptitude Building -3	0	0	2	0	2	4	Skill
5	Will be given by ERP	Major Project	2	0	0	0	2	0	Skill
<b>Elective-3</b>									
6	Will be given by ERP	Microprocessor & Interfacing	3	0	0	0	3	3	EMP
6	Will be given by ERP	Quantum Computing	3	0	0	0	3	3	EMP
6	Will be given by ERP	Soft Computing	3	0	0	0	3	3	EMP
6	Will be given by ERP	Machine Learning	3	0	0	0	3	3	EMP

6	Will be given by ERP	Modeling and Simulation	3	0	0	0	3	3	EMP
<b>Elective-4</b>									
7	Will be given by ERP	Cloud Application Development	3	0	1	0	4	5	EMP
7	Will be given by ERP	Adhoc & Sensors Networks	3	0	1	0	4	5	EMP
7	Will be given by ERP	Statistical Analysis using R	3	0	1	0	4	5	EMP
7	Will be given by ERP	Block Chain	3	0	1	0	4	5	EMP
7	Will be given by ERP	Software Defined Network	3	0	1	0	4	5	EMP
<b>Total credits</b>							22	22	

Sixth Semester									
			Credit Structure						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	Compiler Design	3	0	0	0	3	3	EMP
2	Will be given by ERP	Campus 2 Corporate Training	0	0	2	0	2	4	Skill
3	Will be given by ERP	Web Technology	3	0	1	1	5	8	EMP
4	Will be given by ERP	Coding Skills Building -I /Market Launch and Funding/An insight into Database and Computer Networks/ ERP & CRM	3	0	1	1	5	6	
5	Will be given by ERP	Internship	0	0	1	0	1	2	Skill
6	Will be given by ERP	Major Project	0	0	0	0	2	0	Skill
<b>Elective-5</b>									
6	Will be given by ERP	Digital Signal Processing	3	0	0	0	3	3	EMP
6	Will be given by ERP	Object Oriented Analysis & Design	3	0	0	0	3	3	EMP
6	Will be given by ERP	E-Business	3	0	0	0	3	3	EMP
6	Will be given by ERP	Network Operating System	3	0	0	0	3	3	EMP
6	Will be given by ERP	Robotics Process automation	3	0	0	0	3	3	EMP
7	Will be given by ERP	Creativity, Innovation & Entre'ship	3	0	0	0	0	3	EP
<b>Total credits</b>							21	26	

Seventh Semester									
			Credit Structure						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	MOOC-01	3	0	0	0	3	3	EMP
2	Will be given by ERP	Coding Skills Building - II/Start Up launch and Market Penetration - Managing Family Business/Beyond Compilation/Advanced web designing	0	0	3	0	3	6	
3	Will be given by ERP	Research Methodology & IPR	3	0	0	0	3	3	EMP
4	Will be given by ERP	Capstone Project	0	0	0	0	4	8	Skill
<b>Elective-6</b>									
5	Will be given by ERP	Enterprise Resource Planning	3	0	1	0	4	5	EMP
5	Will be given by ERP	Deep Learning	3	0	1	0	4	5	EMP
5	Will be given by ERP	Satellite Image Analysis	3	0	1	0	4	5	EMP

5	Will be given by ERP	UI&UX	3	0	1	0	4	5	EMP
<b>Total credits</b>							17	20	

<b>Eighth Semester</b>									
			<b>Credit Structure</b>						
Sl. No.	Course Code	Course Title	L	T	P	S	Credits	Hours	Type
1	Will be given by ERP	Industrial Internship	0	0	2	0	2	4	Skill
2	Will be given by ERP	Capstone Project	0	0	9	0	9	18	Skill
<b>Total credits</b>							11	20	